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# *the* **ILLINOIS ENGINEER**



H. E. BABBITT, Secretary Emeritus, I. S. P. E.  
(See Page 1)

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# Of Professional Interest

## THE ILLINOIS ENGINEER—THIS MONTH

### H. E. Babbitt Retires—End of an Era

*H. E. Babbitt has retired as Secretary of the Illinois Society of Professional Engineers. That statement is of such interest and importance to the Society that no abbreviations should be used; every word should be spelled out in full.*

*From 1886, when the Society was founded, until 1925 may be considered roughly as the period during which the engineer was developing his technical skills. From 1925 to date may be considered as the period when he was awakening to his professional responsibilities. Professor Babbitt's service to the Society covers this second period. When Secretary Babbitt became active in society affairs there was a membership of four or five hundred. Babbitt saw the evolution from that small civil engineering society, through an organization of technical sections embracing all phases of engineering methodology, to society government by chapters where professional development and welfare in every field are all important.*

*When it became evident that the time was ripe to obtain a registration law, both in the minds of the public as well as to the profession, itself, Babbitt showed the way. When it became necessary to obtain a second law because of the unconstitutionality of the first one, Babbitt was still in the van. And he has seen the consequent tripling of society membership which has occurred during the past eight or ten years.*

*Impatience has been shown at the apparently slow rate of society growth. Such impatience indicates an enthusiastic membership and is commendable and proper. But, isn't it a possibility that slow growth can also indicate a solidarity and stability of purpose which might not be present with a larger but more fluctuating membership? Certainly under Babbitt's leadership every step forward in society progress has been consolidated as the step was taken. What we have taken, we have held. There has been no retrogression.*

*Of course, we all hope that the Society will progress at an accelerated rate during the next third of a century. But we need have no fear for society soundness if we accomplish as much during that period as we have during Secretary Babbitt's regime.*

*Retirement from the Secretaryship does not mean retirement from society or other activities for Professor Babbitt. He is an indestructible dynamo and will continue to be one for many, many years to come. We all wish him well.*

W. A. OLIVER, Editor.

Hardships and difficulties make men strong; ease and luxuries make men weak. — Wm. J. H. Boetcher.

## PRESIDENT'S MESSAGE

It is with the fervent hope, as your new President, that I can justify your faith in me and that I can, and with your help and encouragement, build a program of constructive service.

One can gather from your many letters of support, and the keen willingness in accepting committee appointments, a revealing stimulant that is encouraging to your profession. From what can be seen over the horizon, a tumultuous year is in the making. It appears those almost unsurmountable achievements of your Society will be written in our history. It is doubtful that the exuberant interest of the kind that has been displayed by you members has at any time existed in our organization. It will be a blazing year, by a blazing membership!

A stage for accomplishment has been set by the steadfast and hard work of your past officers, committees, and the never-ceasing support of you members. The groundwork has been well established and the foundation has been deeply set. We certainly are thankful to those who have labored to set that glorious stage.

There are now certain organization plans being formulated by committees which will add to your Society's development. The success of such plans is dependent upon the contribution of full membership participation. We shall set out with a determined campaign to individually provide the momentum to continue the shaping of the future of the profession. Let us not fail!

At this time next year, when my term of office will be coming to a close, I hope I can say: "We have met a goal of membership of 3,000!" This is not impossible! It is not a dream! It can be done! But it will mean "CONCERTED ACTION" by each of you. Let this be a positive challenge to every one of us!

We need to develop policies and programs to accelerate "Professional Unity." Let's agree that the problems are individually and collectively our responsibilities. We have a good set of sound tools with which we can deal realistically in effecting unity in the profession. One of the most pressing problems is to bring into the Society the many thousands of qualified engineers who must be encouraged to realize their professional status. The public looks to us for safety, economy, improved conveniences, as well as guidance in industrial and community affairs. We are a public servant and have the responsibility of protecting the public by professional standards.

Enthusiastic personnel has been selected to serve on the many committees. These committees will be looked upon to provide a variety of service to the members, to individual chapters, to the National Society, and to the

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public. When matters are of national significance, the committees will work with our National Society—particularly in the fields dealing with public relations, young engineers, national defense, registration, ethical practices, and the like.

Even at this early time, the recently-formed committees have been having meetings to lay plans for constructive service to the profession. We look with appreciation to this and all future work of the committees. These committees are yours! I urge, therefore, that you exercise your privilege by offering assistance and suggestions to your committees.

Important decisions confront our country as well as our profession. Let us, to the best of our ability, unite for the purpose of rendering the highest service.

Let us accelerate the program of "Professional Unity." It is with this sincere and earnest aim that we render high service to the profession and to our country.

RAYMOND G. BRICHLER  
President, I.S.P.E.

### MEAT LOAF!

LARRY J. MCGONIGAL, Member, I.S.P.E.  
City Engineer, La Salle, Ill.

I wish I were a poet, so I could write a little poem  
About what we poor fellows eat who are far away from  
home.

When we go into a restaurant we sit there for a while,  
When finally comes a waitress who greets us with a smile.  
We ask what's on the menu, then sit there still and cold,  
While we hear the same old story that so often has been  
told.

She begins by saying Meat Loaf! Oh! God! It cannot be!  
Those words to me are nauseating as a trip across the sea.  
We never hear of pork chops, beefsteak or even fish,  
Oh! No! It's always Meat Loaf! that comes in upon the  
dish.

I've traveled many countries and nearly all the States  
But have never seen so much Meat Loaf piled upon the  
plates.

It's Meat Loaf! yes, it's Meat Loaf! that's all they ever  
say,  
So I hope by all that's Holy it won't be served on Judgment Day!

### TO CRACK NUTS ??

To the Secretary of I.S.P.E.

This is to notify you that on March 8, 1953 this office was burglarized and my P. E. Seal, Illinois 16364, was stolen. I thought perhaps it should be reported.

Yours truly,

CARL W. MCPHERSON,  
Member, N.S.P.E.  
2142 E. Fillmore St.  
Phoenix, Arizona

## CAPITAL CHAPTER'S SECOND BIENNIAL LEGISLATORS' DINNER

(Prepared by Assistant Secretary P. E. Roberts)

The second biennial legislators' dinner and entertainment was held at the Leland Hotel on March 16, 1953. Over 300 Senators and Representatives with their engineer friends from nearly every Chapter in the Illinois Society sat down to dinner at 7 p. m.

Master of Ceremonies Clarence W. Klassen set the theme of the meeting when he told those in attendance that this meeting was unique in that the engineers were spending their good money to entertain the lawmakers and that they, the engineers, wanted nothing but the good will of their guests.

The "Top Brass" of the State Government were represented by Governor William G. Stratton, Lieutenant-Governor John W. Chapman, Warren L. Wood, Speaker of the House, and the Society's only engineering legislator, Charles K. Willett. From the colleges of engineering came Dean William L. Everitt, University of Illinois, Dean R. G. Owens and Professor Frank Edwards, Illinois Institute of Technology, and Dean Russell E. Gibbs, Bradley University. The top levels of the Society included President A. Douglas Spicer, Vice-President-elect C. W. Klassen, and Capital Chapter's President D. S. Magowan. Of all those who sat at the speakers' table, President Spicer was the only one who made a speech. His remarks were short, to the point and well received in spite of the fact that the event had been advertised as a no-speech affair.

Many big names were a part of the audience: Judge Vera Binks, Director of Registration and Education; Senator Frank P. Johnson, 37th District; Frank Barker, Chief Highway Engineer; G. William Horsley, Chairman of the Insurance Committee; Reed F. Cutler, Chairman of the House Executive Committee; Lewis H. Gerdling, Head, Division of Architecture and Engineering; R. M. Walker, Chairman, House Committee on Roads and Bridges; Carter Jenkins, member of the professional engineering examining committee; G. E. Rynearson, general Chairman of the affair; and Bob Wallace, chairman of the Society's legislative action committee.

The show produced and acted by the Division of Sanitary Engineering was based on *South Pacific*. The script was a satire on an investigating committee investigating an investigating committee. The cast included four girls and a dozen men from the department who did their singing and dancing like professionals. Representative G. William "Bill" Horsley was dragged into the act and among other things, he and LaVerne Hudson did a duet on the slide trombones. C. C. "Swede" Larson and his wife supplied the musical accompaniment for the show. Mr. Larson is chemist and superintendent of water purification for the City of Springfield.

With the close of the second party for the legislators, there is little doubt that this event which is rapidly be-





#### CAPITAL CHAPTER'S LEGISLATORS' DINNER

Speakers' table Capital Chapter's second biennial legislators' night. Left to right: Warren L. Wood, Speaker of the House; Charles K. Willett, Rock River Chapter; Governor William G. Stratton; D. S. Magowan, President Capital Chapter; C. W. Klassen, Vice-President-elect; Lt. Governor John W. Chapman; Dean William L. Everitt, University of Illinois; Dean Russell E. Gibbs, Bradley University; Dean R. G. Owen, Illinois Institute of Technology; President A. Douglas Spicer. March 16, 1953.

coming socially important will be repeated two years hence.

In every respect, the second biennial meeting was a success. Those in attendance expressed their sentiments as follows: "We like. We buy."

#### ENGINEERS' WEEK WITH LAKE COUNTY

(Prepared by W. T. Hooper, Member, I.S.P.E.)

Lake County Chapter was hindered in its efforts to publicize Engineers' Week by a strike at the local newspaper which has kept news to a minimum for several weeks. We did get a couple of short articles in the paper and persuaded several merchants to include a line in their advertisements announcing Engineers' Week and giving the dates. Also, two merchants included the same thing in their spot announcements over the local radio station.

The Chamber of Commerce invited us to put on the program for their luncheon meeting Wednesday, 25 Feb-

ruary 1953, at the local country club. We had an audience of well over one hundred Chamber members and engineers. The program consisted of a panel of speakers who discussed the various phases of engineering as related to the public.

Bill Hooper acted as toastmaster and started the discussions by defining what engineering is and the distinction between engineering and science.

Chet Domke gave a review of the various phases of engineering and their history and mentioned briefly his work as superintendent of the Waukegan waterworks. In spite of Chet's claim to no speaking ability, his talk was the most learned of the group and well delivered.

Sid Danoff explained the work of engineers in industry and differentiated between the various types of those usually called "industrial engineers" by the layman. The talk was well organized and quite informative.

Bob Kramer reviewed the place of the engineer in public work and outlined the many facets of personality he

(Continued on page 8)



# Champaign County Chapter Tackles a Civic Problem

W. J. ROBERTS, President, Champaign County Chapter

Champaign County Chapter has always set apart some of its programs through the years for the study of local civic problems that involve engineering matters. During the last two years we have had meetings devoted to the parking problem in the downtown business area of Champaign. Last year we had a forum and this year we heard a local businessman who had his own plan regarding the parking problem. We had a good turnout for this recent meeting but our members are a critical audience, and although the speaker made a fine presentation, including a movie on the type of parking garage he favored, very few of the engineers agreed with him. They all appreciated the fact that he had a plan; but they all wanted to change it.

After hearing all the discussion we decided to write a preliminary report on the problem, incorporating many of the ideas presented at the meeting. The report was prepared and copies sent to 15 of our most interested members. Within a week we had received criticisms and suggestions from 14. One couldn't agree that a problem existed.

The revised report was mimeographed and copies distributed at the next chapter meeting. There was spirited discussion, but the report was accepted with minor revisions, and copies were sent to city officials and officers of the local Chamber of Commerce. The newspapers gave the report good publicity, and we are confident it will be studied closely by the city fathers as they endeavor to overcome Champaign's No. 1 problem.

The report is presented here to interest other chapters in taking positive action on some of their local civic problems. A few of our chapters have been doing this sort of work for a long time.

In this case many of our members gladly volunteered time and talent on this collective effort of the chapter. There was general satisfaction with the report because we felt that our professional society was using its influence to initiate positive action on a community problem.

The report follows:

## Champaign County Chapter

## Illinois Society of Professional Engineers

### REPORT ON THE PARKING SITUATION IN CHAMPAIGN

This report is prepared by the Champaign County Chapter, Illinois Society of Professional Engineers, in order to call attention to the serious parking problem in the downtown business area of Champaign and to suggest a procedure for its prompt solution.

#### The Problem

For many years this shopping area has suffered from a shortage of automobile parking facilities. A few merchants have attempted to solve their customer parking by providing their own parking lots. These have given some relief, but the constant increase in

number of automobiles has now created a bad situation. Engineering surveys have established the inadequacy of present parking facilities. Instead of an increase in the number of business establishments in the downtown area, the opposite is true, for business is moving away from the central area to fringe business districts where parking is presently available.

The problem strikes at the economic life of the city. Unless bold steps are taken to overcome it, every citizen will suffer through increased taxes on residential properties to make up for the decreased valuations in a decentralized business district. Economical solutions to such problems have been devised by professional engineers. There are no engineering obstacles to their adaptation to Champaign's needs.

#### An Approach to a Solution

The responsibility for solving the problem rests on the city government, the downtown businessmen, and the general public. The business interests are represented by the Chamber of Commerce, and it is the function of the city government to act on behalf of the general public. Leadership in this matter is the equal responsibility of both the businessmen and the city administration. Agreement of these parties to assume their respective shares of the responsibility is an immediate requisite. The next step should be the retaining of a competent and qualified person in traffic and related matters, who would conduct an engineering survey, evaluate the various possible solutions, and formulate a definite plan for parking facilities for the public convenience. The cost of such a survey should be paid partly by the businessmen and partly by parking meter receipts. It is estimated that such a survey would cost \$5,000.

The closing of a contract for such a survey would be predicated on an agreement that both the merchants and the city government would abide by the report of the survey and that they would carry out the recommendations without unnecessary delay.

The solution, whether parking lots or parking garages, will require a large capital investment. The venture should be inviting to investment groups because adequate parking facilities will attract shoppers who now prefer to do their buying in less congested areas as well as reduce the present street parking overload.

Operation of the parking facilities may be handled either by private enterprise, with fixed percentages of the gross receipts being turned over to the city, or by the city government through a Board of Direction similar to the Sanitary District Board.

The Champaign Chamber of Commerce should alert its membership for immediate action. The city government should cooperate with the businessmen to get the survey started.

The Champaign County Chapter, Illinois Society of Professional Engineers, advances this plan of procedure as a vitally necessary series of steps to halt the dismemberment of Champaign's main business district and to provide for the welfare and growth of the community.

I hold every man a debtor to his profession;  
from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves by way of amends to be a help and ornament thereunto.

Sir Francis Bacon



# President's Report

## 68th Annual Meeting

A. D. SPICER, Retiring President

It is customary to begin an annual meeting of the Illinois Society of Professional Engineers with the report of the President. There has been a departure from the normal procedure this morning, and the reports of the Vice-President and the Secretary-Treasurer have been placed on the agenda ahead of this one. The purpose of the change was to permit you to review the financial condition of the organization and to bring you up to date on matters of routine business which pass through the Secretary's office. It appears in order to comment upon the things which these reports have left unsaid.

In analyzing these reports, we find that they say, in effect, only two things. First, the Society is in sound financial condition, and second, the routine business matters of the organization are being handled adequately. Perhaps this is all that need be said, but it is quite probable that not everyone in the Society is aware of the significance of being both financially solvent and capable of handling all of the business which passes through the office of the Society.

It has not been too many years since the Society moved its headquarters from Secretary Babbitt's office to the space we now occupy at 631 East Green Street in Champaign. In fact, the move took place in 1950. A year ago it became necessary to rent additional space to house reproduction equipment, records, etc., because the volume of work which was passing through the office was becoming so great that the original rented space was inadequate. Since moving into our own quarters, the volume of business which is handled has continuously expanded, but the staff has not been increased. In fact, there is less staff now than there was during the last period of time when we were headquartered in Secretary Babbitt's office. I hesitate to be explicit about the quantity of work which is now handled, but I would estimate that it is somewhere in the vicinity of triple what it was half a dozen years ago. Most of the additional work handled by the office is reflected in additional service to the chapters, the various Society committees and the Board of Direction. The important thing, however, is that these things are being done on a budget which is virtually the same as it was four or five years ago. Each year the Budget Committee has wrestled with the realities of a rather static income and increasing costs of doing business. Membership has taken no startling strides in recent years, and the Society income has remained more or less constant. And yet, in spite of this condition, the business management of the Society has been able to expand materially the scope of matters handled.

Having served on the Budget Committee for the past two years, I am keenly aware of how frustrating it is to

set up a tentative schedule of undertakings, and then endeavor to finance the program from the anticipated income. Likewise, during the past year, I have been close enough to the Secretary and his staff to recognize the difficulties of doing many desirable things because of budget limitations. The important thing to recognize is that because of good business management, our Society is not neglecting any portion of its program. Increased revenues through growth of membership will permit further expansion of office functions. In the meantime, full credit must be given Secretary Babbitt for his guiding hand and Assistant Secretary Roberts for his effective administration of continually increasing service to the membership at a continually decreasing cost per service per member.

In general, it would seem that we have had a successful year. Most of the program which was charted at the beginning of the year has been followed more or less according to schedule. There have been a few disappointments, but several projects have developed far beyond our fondest dreams. Some outstanding accomplishments have been realized by several of our committees, others have had nothing to do because of circumstances over which they had no control, and still others have had nothing to do because they are "emergency" committees and do not function unless an emergency occurs. Fortunately, there have been no emergencies.

As the day progresses, you will hear reports from the various committees which have carried out the work of the Society during the past year. These reports will speak for themselves, and you will no doubt wish to express opinions on some matters. At this time I have no comments to make other than to express my appreciation to those who have served on these committees and to the chairmen who have guided the work.

During the first part of the year the legislature was not in session, and so there was little activity in legislative matters. During the time that the legislature has been in session since January, the Society has been in close touch with affairs in the Statehouse, but up to the present time there have been no items of serious nature. With the change of administration, the Society promptly offered its services to the new governor, and it is felt that our relations with the administration are on a firm basis. The Capitol Chapter is to be commended for their excellent work in connection with their legislative dinner, and I feel that the results of their efforts do more to cement our relations with the legislators than any other one thing the Society does or can do. At the present time, the Society's relations with the office of the Department of Registration and Education are extremely cordial, and the Society has offered its services to the



Director of the Department in any matters in which it may be of assistance. The offer has been acknowledged and accepted in the spirit in which it was given, and we look forward to a long and happy association with the Department.

It may surprise some of you to learn how extensively the President must travel in the discharge of his duties. During this past year, your President has traveled slightly over 8000 miles in connection with Society matters. It has been possible to visit all sixteen of the chapters and to be the principal speaker at all but two, as well as speaking to several engineering organizations not connected with I. S. P. E. There have also been a series of lectures given to non-engineering groups, such as Ki-

wanis, Rotary, teachers' organizations, etc. In addition, the President has presided at the Chapter Officers Conference and at all of the Board of Direction meetings.

May I ask your indulgence and conclude with a few personal remarks. The experience of being President of the Illinois Society of Professional Engineers has been one in which I take a great deal of pride. The trust you placed in me when you elected me to this office was an honor not to be taken lightly. Personally, I have gained a great measure of satisfaction in visiting you at your chapter meetings, in discussing Society matters, and in carrying out Society business. I only hope that the time which was devoted to these matters has been as valuable to the Society as it has been to me.

## Chicago Chapter News—March Meeting

The regular March chapter meeting was called to order on March 12, 1953, at 7:05 p. m. by chapter president, Engineer John Dolio, P.E., I.S.P.E., in the meeting room at the Western Society of Engineers, 84 East Randolph Street, Chicago, Illinois.

### Secretarial Report

Chapter secretary-treasurer, Engineer Allen Drachman, P. E., states that 34 members and guests were present for both dinner and meeting.

### Committee Reports and Announcements

Former chapter president, Engineer Frank Edwards, P. E., made the announcement of the Annual Meeting of all the chapters at Rock Island on March 26, 27 and 28 and urged as full attendance as possible.

Chapter president, Engineer John Dolio, next introduced the new Public Relations and Publicity chairman, Engineer K. Austin Jewell, P. E., who outlined his plans for a special and individual publicity program for each of the members and requested the cooperation of the membership.

### Speaker Program

Chapter Program chairman, Engineer E. I. Fiesenhiser, P. E., was called upon to introduce the speaker of the evening, Engineer Bonnell H. Allen, P. E., manager of the Chicago Offices of the Engineering Societies Personnel Service, who spoke on "Using Engineers to Advantage."

Engineer Allen informed the meeting that although the E. S. P. S. is basically interested in finding men for jobs and jobs for men, it also serves other functions, such as advising the societies and industrial firms on matters of personnel relations and employee relations. Although feeling is in industry that the current severe shortage of engineers will last only for the next several years, it is more probable that it will last 10 years. The shortage is caused by 4 major reasons:

1. The depression caused a dip in the population growth which shows up now, as people born in that

period reach maturity and that there are just not enough young people available in all the categories to fill the many beginning and junior positions which are presently open to them.



Bonnell H. Allen

2. The tremendous advance in industry in size, complexity and technical achievements. Job problems that were formerly resolved by trial and error are now engineered instead. Even small firms require engineers for their staffs, as they have found the cost of labor and materials' cost, if and when they can get the material, are so high that they cannot meet competition by using a trial and error method any longer. They have been forced to engineer their products first to keep manufacturing or construction costs down.

(Continued on page 8)



# Annual Report of the Editor of the Illinois Engineer for 1952

W. A. OLIVER

(Presented at 68th Annual Meeting)

The general editorial policies of the magazine which have prevailed during the past several years were continued during 1952 and are expected to be continued during 1953. The primary purposes of our publication are (1) to keep the membership informed concerning Society business and progress and (2) to keep them informed concerning the thinking and activity going on in the engineering profession at all levels—local, state, and national. These are our ideals. Obviously we do not accomplish them in their entirety. Not the least of the factors which prevents total accomplishment is cost, we must keep within the budget, but also one should not fail to mention a second factor, human frailty.

Since the Illinois Society of Professional Engineers is a professional organization, the pages of its publication should be devoted primarily to articles and papers dealing with professional matters. This has been done. On the other hand, technical papers are always of interest and we have continued to encourage their submission for publication in the *Illinois Engineer*. We had only one of these during 1952, a paper on the first prestressed, precast concrete bridge in Illinois. We would like more papers of this nature. We are also proud of the professional papers we have published. A comparison of ours with those published in other magazines of a similar nature will show that ours are in general of a uniformly high quality.

We have always held that short articles are more apt to be read than long ones. Consequently, we have continued the section, "Of Professional Interest," in the first three or four pages of each issue. One of the more important monthly items here has been the "President's Message," and we want to thank our retiring President Spicer for his wholehearted cooperation and support. His message was always there and always on time. And while thanks are being passed out, we want to express ours to the Secretary's office for their uniform willingness to do their share of the job that has to be done every month.

Now for a few statistics. During 1952 we kept within our budget. We published a total of 196 pages including covers on the eight covered issues—we published four self-covered issues, June through September, the other eight were covered. We published the same number of pages in 1951.

The total gross cost of the magazine was \$3712.54. The income from advertising was \$1668.71, so that the net cost was \$2043.83. The estimated average membership for 1952 as obtained from the Secretary's office was 1750. Using these figures, the unit cost per member for the

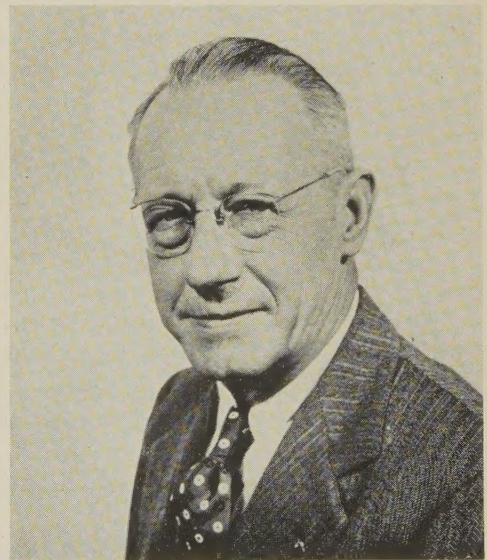
magazine was about \$1.17 for the year. This figure is somewhat lower than it was a year ago.

The income from advertising, while it has remained practically static for a number of years, was lower in 1952 than in 1951—\$1668.71 in 1952 and \$1725.18 in 1951. As has been said many, many times, we need more advertising.

We want to thank the entire membership for its continued and, we hope, continuing interest and cooperation in the preparation and publication of our magazine. We are still far from the saturation point in the number of articles and pictures we can use and we hope that you will continue to send them in. As we have said in the past, put your gripes down on paper, send them to us, and if they are printable, we'll put them in the *Illinois Engineer*.

## Crane Packing Company Appoints Carl E. Schmitz, Member N. S. P. E., Vice President of Sales

Carl E. Schmitz has recently been appointed Vice President in Charge of Sales for Crane Packing Company, Chicago, Ill., a leading manufacturer of mechanical packing, mechanical seals, Teflon parts, Lapping machines and other products. He formerly held the position of Vice President and Director of Engineering.



Carl E. Schmitz

Mr. Schmitz joined the Crane Packing Company organization in 1942, where his duties have been with the Engineering Department. Mr. Schmitz is well known throughout the Engineering Societies, being a member of twenty-two technical organizations and a former president of the American Society of Lubricating Engineers.



## CHICAGO CHAPTER

(Continued from page 6)

3. The enlarged and broadened functions of government require many more engineers than formerly, as there are many government sponsored projects using engineers and scientists which are too theoretical and too long drawn out, that private capital could not possibly afford to handle them and show a fair return on the investment for many years to come.

4. The Korean War, which is commonly considered by industry as the main cause, is not one of the underlying factors causing the shortage. It did ferret the situation out into the open and spotlighted our shortsightedness in not doing something before.

Engineer Allen stated that a person who had the aptitude and limited technical or engineering knowledge or training could be trained into a position of a sub-professional nature in a comparatively short time ranging from six weeks to three months, depending on the circumstances. However, it took years to train a professional person as he had to have several years' seasoning beyond the academic work in order to reach the peak of his professional usefulness.

Engineer Allen next pointed out several steps which can be taken to use engineers to better advantage and also alleviate the shortage, which are:

1. Promote engineers as fast as they can absorb the greater challenges of more responsibility and have shown their capacity for work of a broader scope or more advanced nature. However, Engineer Allen warned against advancing an engineer from a money viewpoint alone, and brought out that a professional must advance in capacity, ability, experience and knowledge in order to truly merit the title of a professional engineer.

2. Use engineering aides, high school graduates, technicians and sub-professional people for sub-professional jobs and conserve the professional engineering talent for those positions which really demand professional engineer training, experience or background. Putting a professional engineer in a sub-professional or mediocre position will only create a dissatisfied or temporary employee who will not get the results you expect.

3. Make job analyses and through them eliminate unessential work and simplify the required jobs. Also, through job analyses determine which positions are sub-professional and those which are professional and then transfer your employees accordingly so that each one can best do the position according to his or her own ability and capacity.

4. Set up a periodic performance rating program to check the progress and work performance of the entire technical and engineering staff and to determine the advisability of granting a merit raise on the same level or to upgrade to a higher level. Plan a progressive series of advancements flexible enough to meet the capabilities of your technical organization according to each person's own individual ability and capacity to advance—whether it be fast or slow.

It was also brought out that a new employee costs between \$200 and \$2000 or more, depending on the circumstances, to break him into a new position and, therefore, it is more sensible to keep your present staff as long as possible.

Engineer Allen said that a professional engineer, like everyone else, must have a position which will challenge him to his utmost, and that if this is done, he will be happier, work harder, stay longer, be more loyal, more productive and help you accomplish your objectives more satisfactorily.

### Speech Discussion

After Engineer Allen's talk, the meeting was thrown open for questions and answers. Several leading questions were asked and Engineer Allen answered them by example and in a detailed manner.

The regular March meeting was adjourned at 8:15 p.m.  
The regular March meeting was adjourned at 8:15 p.m.

ENGINEER ALLEN DRACHMAN, P.E.  
Secretary-Treasurer,  
Chicago Chapter, I.S.P.E.

### COST OF LIVING INDEX

The correction factor to be applied to the I. S. P. E. Schedule of Minimum Fees and Salaries was 188.6 for February, 1953. The factor is based upon the U. S. Department of Labor's most recent Consumer Price Index.

### ENGINEER'S WEEK—LAKE COUNTY

(Continued from page 3)

must develop in order to keep his various bosses happy. He made it sound like interesting but trying work. Bob did us proud as our chapter president.

Bill made some closing remarks and couldn't resist the temptation to blow the horn of the private consultant and his service to public and private organizations which are too small to support a full-time engineering department.

We have had a great deal of favorable comment on the program.

Wednesday evening the chapter celebrated its annual Ladies' Night with a buffet supper and dance at "Hanks" on Skokie Highway. There were 35 couples and two very pretty daughters of members present. The chow was good, the orchestra tuneful, the ladies pretty and the drinks plentiful. All in all, a most successful party.

### FROM N. S. P. E. LEGISLATIVE BULLETIN

#### Stand-by Controls Under Study

Following President Eisenhower's decision to terminate all salary and wage controls without waiting for the scheduled expiration date of April 30, attention has turned to proposals to place a new control law on the books to be made effective only upon the arising of certain emergency conditions. In his State of the Union message, the President announced that he did not intend to ask for a renewal of price, wage, and salary controls,



thus leaving the implication that he did not consider stand-by controls necessary. However, Senator Homer E. Capehart, (R., Ind.), Chairman of the Senate Banking and Currency Committee, is vigorously pressing the standby proposal on the ground that should the need for such controls arise it would take too long for Congress to enact a proper law and for the administration of such a law to be organized. Senator Capehart has announced that hearings will start on his bill the latter part of February.

As a result of Senator Capehart's position, the White House has designated Arthur S. Flemming, head of stabilization activities, to study the question and submit a report on the need, if any, for legislation along the lines proposed by Senator Capehart. This development may be indicative of a change of attitude by the President and there has been a report that the White House has asked the Indiana Senator to delay the start of the hearing until the Flemming study is completed. The original date for starting the hearing was set as February 17th but the opening date has now been moved forward to February 24th.

Of particular interest to the engineering profession is the question of the stand-by law provisions regarding control of salaries of professional engineers. It will be recalled that NSPE obtained an amendment last summer removing control of salaries and wages of professional engineers under the current law. The pending Capehart bill proposes to continue the same exemption for professional engineers employed in a professional capacity as well as wages and salaries of architects, doctors, lawyers and certified public accountants. As in the current law, rates or fees charged for professional services would not be subject to control.

Should the Capehart bill reach the stage of serious consideration it is to be expected that there will be considerable opposition to the exclusion of wages and salaries for professional engineers by certain Senators who opposed the previous exemption as well as the Salary Stabilization Board. (S. 753).

### Social Security Coverage for Self-Employed

Self-employed professional engineers who are presently not subject to social security coverage have a particular interest in President Eisenhower's remarks in his State of the Union message dealing with the over-all social security question. "The provisions of the Old Age and Survivors Insurance Law should promptly be extended to cover millions of citizens who have been left out of the Social Security System," the President said. A few days later a White House announcement of an 11-point legislative program for this year included, "extension of Old-Age and Survivors Insurance, to cover groups presently excluded." The question is whether these references are all-inclusive and if they mean that the President has definitely determined upon the advisability of coverage for all self-employed groups, many of whom are now excluded.

Meanwhile, the introduction of legislation bearing upon coverage for some of the other professional groups continues. The latest proposals are to cover ministers on a voluntary basis (H.R. 2249), and to provide compulsory coverage for all self-employed lawyers (H.R. 2708). The proposal on lawyers is at variance with a previous suggestion that voluntary coverage be authorized.

A further social security proposal of particular interest to state and municipal employees is by Senator John J. Sparkman (D., Ala.), to extend coverage to state and local employees who are covered by state and local retirement systems. Such coverage would be determined by a referendum of the affected employees (S. 250).

Latest reports are that the House Ways and Means Committee intends to hold exhaustive hearings on all pending social security questions and that these hearings may be of such duration that action will not be forthcoming at the current session.

### Federal Aid to Education

A variety of bills have been introduced bearing upon suggestions that the federal government provide financial aid to the furtherance of higher education. All of these proposals relate in one degree or another to the much publicized need for more engineering and science graduates as a matter of national defense necessity. For example, Representative Carl Elliott (D., Ala.), has reintroduced the proposal first made last year that the federal government provide scholarships and guarantee loans to needy students, with the provision that when determined by the President to be in the national interest or in time of war, sixty per cent of the scholarships shall be in fields of study determined to be related to the national defense or defense supporting activities. At the time of introduction last year this provision was explained as meaning that great emphasis would be placed on scientific and engineering education. (H.R. 2838.)

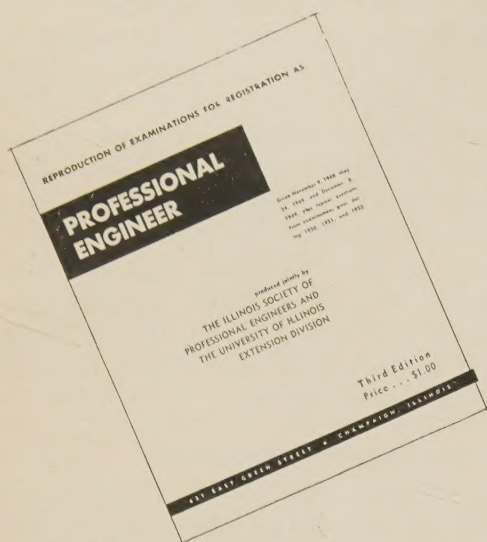
A different proposal is advanced by Senator William Langer (R., N. D.) to authorize loans to those desiring to obtain vocational, technical, academic or professional education beyond the high school level. Each qualified student would be entitled to a loan of not to exceed \$1,000, which would be repayable within fifteen years. An original appropriation of \$50,000,000 would be authorized to establish a revolving fund (S. 157).

Senator Hubert Humphrey (D., Minn.) has reintroduced his former proposal to provide assistance in the form of grants and scholarships for postgraduate education in the public health field. Previous bills along this line have specifically included sanitary engineering education as part of the public health field. The current Humphrey bill does not specify particular fields but presumably sanitary engineering would be included in the overall coverage. Under the bill, payments would be made to schools having public health courses, grants for construction and equipment to assist in the establishment of new schools for public health and scholarships for public health study. (S. 461).



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### Private Power Development of Niagara Gains

Since the 1950 treaty between the United States and Canada dividing the water power of the Niagara river, a struggle has been existent between claimants to the opportunity for developing the extensive power potentialities. The parties to the contest have been the private power companies, New York State, and the Federal Government. Legislation has been introduced in Congress on behalf of each party to the controversy.

The Capehart-Miller bill has now been reintroduced which would authorize the private power companies to proceed with the development. Indications are that this bill will shortly receive favorable consideration following reports that Representative George A. Dondero (R., Mich.) chairman of the House Public Works Committee, favors the private enterprise legislation. It has been estimated that the project will produce almost 8,000,000,000 kilowatt hours of hydro-electric power a year and will cost in the neighborhood of \$350,000,000. It is expected that if the Capehart-Miller bill is approved the five largest power companies of New York will pool their resources to construct the project.

A recent resolution adopted by the NSPE Board of Directors favored private enterprise development of natural resources and particularly cited the Niagara River project and the Hell's Canyon Project on the Snake River as instances in which private enterprise is prepared and willing to undertake the development in opposition to the claims of public agencies. (S. 689, H. R. 2289).

### Retirement Income Legislation

In view of President Eisenhower's pre-election endorsement of the principle of legislation to permit self-

employed persons to provide for their old age and retirement by amendment of the tax laws, considerable interest attaches to the sentence in his State of the Union message which supported congressional action for "the encouragement of privately sponsored pension plans." The President did not spell out any details of this idea but presumably his reference was to action by Congress to provide that taxpayers who are not employees may have taxes postponed on a portion of their income in order to build up a retirement reserve, the proceeds of which would be taxable when the individual reached retirement age. Several bills have already been introduced along this line and still more are forthcoming, all along the same general line with one exception. The latest bills which follow the principle of previous legislation are by Representative A. Sidney Camp (D. Ga.) and Carl Elliott (D., Ala.) both of which would authorize the exclusion of 10 per cent of the individual's income or \$7500, whichever was the lesser amount. The applicable amount would be paid into a restricted retirement fund and would not be subject to income taxation until the benefits were received at the age of 60 (Elliott's bill) or 65 (Camp's bill). Another difference in the two latest bills is that Elliott would establish the restricted retirement fund by private business, professional, labor or agricultural associations for the benefit of the members of such associations, whereas Camp would establish the fund through insurance companies or a trustee. (H.R. 2533, H.R. 2692).

Representative Clifford Davis (D., Tenn.) has reintroduced his proposal for a different approach with a somewhat different objective by authorizing issuance of special government bonds which could be purchased up



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to the amount of 15 per cent of the taxpayer's earned net income or \$10,000, whichever is the lesser; the amount so invested in the bonds to be excluded from taxable income. The revenue from the bonds would be taxable when they were cashed, which could be done at any time. The objective of the Davis bill is to provide a means whereby the self-employed individual with a fluctuating income from year to year could level out his tax burden to some extent by investing in the bonds in a "good" year and cashing them in a "lean" year. However, the retirement feature of the other approach could also apply under the Davis bill by holding the bonds until retirement age and cashing them on a regular year-by-year basis. (H. R. 1983).

## E. O. CRAWFORD IN NEW POSITION

The A. E. Staley Manufacturing Co., corn and soy-bean processor, has announced the promotion of Edwin O. Crawford to head the company's mechanical and structural engineering section.

Crawford, who has been a project engineer with the Staley Company since 1947, is president of the Central Illinois Chapter of the Illinois Society of Professional Engineers. He is a 1932 graduate of the Missouri School of Mines.

He succeeds John A. Askren who resigned recently to become general manager of J. I. Askren, Inc., a kitchen equipment manufacturing firm at Indianapolis.



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*These items are from information furnished by the Engineering Societies Personnel Service, Inc., Chicago. This SERVICE is operated on a co-operative non-profit basis by the Illinois Society of Professional Engineers, and the national societies of Civil, Electrical, Mechanical and Mining and Metallurgical Engineers. Apply to ESPS, Chicago and the key number indicated. Prepared ENGINEERS AVAILABLE advertisements limited to 40 words, with typed resumé attached may be submitted to ESPS, Chicago by members of the Illinois Society of Professional Engineers at no charge. If placed in a position as a result of an Engineers Available or Position Available advertisement, applicants agree to pay the established placement fee. These rates are available on request and are sufficient to maintain an effective non-profit personnel service. A weekly bulletin of positions open is available to subscribers. Apply E.S.P.S., Chicago.*

## OVER THE MANAGER'S DESK April, 1953

*April brings forth the buds of Spring which will blossom out later into the beauties of nature. It can also be the month of budding ideas which may blossom into new engineering achievements, new progress, new profits.*

*Take advantage of the budding spirit of the month and let us find that new employee for you or that new position which will help you blossom out with new achievements, progress, or profits for you as an employer or employee.—B. H. A.*

## MEN AVAILABLE

**Time Study Engr.** 32. Six yrs. 6 mos. industrial eng. doing time study, wage incentives, methods, plant layout, job evaluation and personnel. \$7000. Midwest. 588-PE

**Constr. Supt.** C.E. 26. Eleven mos. gen'l engr. doing field to office liaison work. Two yrs. constr. engr. doing inspection of a central heating and power plant and a dam. \$5200. Chicago. 589-PE

**Constr. Supt.** C.E. 25. Twenty-one mos. constr. engr. doing specs., estimates, material control and approval. \$5400. U. S. 590-PE

**Field Engr.** Arch. Engrg. 33. Three yrs. engr. doing estimating, layout duct work, drafting, surveying, cost engrg., field engrg., structural design. \$5720. Chicago. 591-PE

**Chemical Engr.** Chem. Engr. 35. Eight yrs. technical adviser and investigator of processing difficulties. Nine yrs. develop processes for the extraction of pharmaceutical products from animal glands. \$7000. Chicago. 592-PE

**Sales Engr.** M.E. 24. Eighteen mos. field engr. inspecting and expediting fabricated steel. One yr. doing design of small structures in plant expansion program. \$5200. U. S. 593-PE

**Sales Engr.** Met. Eng. 29. One yr. serve as trouble shooter and aluminum technical adviser to sales force. Two yrs. quality control in open hearth, rolling mills and metallurgical lab. \$6500. Chicago. 594-PE

**Field Engr.** C.E. 33. One yr. advise customers on economical use of aluminum. Six yrs. project engineer directing activities on research project. \$7800. Chicago. 595-PE

**Sales Engr.** M.E. 29. Four yrs. calling on industry in Chicago area to prescribe for lubrication needs in machinery and equipment. \$7200. U. S. 596-PE

**Editor Journalism.** 39. Four yrs. technical writing, photography, editing, publication work on trade magazines. Two yrs. sched-

uling engrg. and drafting work on constr. jobs. Six mos. soils engr. \$5000. United States. 597-PE

**Sales Engr.** M.E. 28. Three yrs. sales mgr. in setting up new company and sold direct to customer gasoline, diesel engines and generating sets. \$6000. Midwest. 598-PE

**Lab. Assistant.** 26. Eleven mos. preparing samples of rubber for testing and experimental use. \$2800. Midwest. 599-PE

**Lab. Tech.** 31. Three yrs. testing of color pigments, drawing, detailing and layout of shop prints. \$3900. South. 600-PE

**Sales Engrg.** Bach. Science. 59. Twenty-five yrs. teaching physics in high school. Seven years part-time sales, chiefly automotive mechanics' tools. \$5000. Midwest. 601-PE

**Sales Engr.** Aero and M.E. 32. Five yrs. project engr., responsible for development engrg. of a group of appliances. Two yrs. production planner on military aircraft. \$3600. Chicago. 602-PE

## POSITIONS AVAILABLE

**Mechanical Engineers** (2) with min. of 3 years exp. in design and drafting of plans for heating, plumbing and ventilating systems for commercial and industrial type buildings. Salary: to \$550. Company will pay fee. Loc.: Chicago. R-9765(a)

**Land Surveyor.** Registered, preferably with 10 years exp. in Chicago and suburb. Salary: open. Location: Chicago. R-9765(b)

**Resident Engineers** (3 or 4) preferably grad. civil engineers. Must be thoroughly reliable and competent to supervise construction of buildings, hospitals, sewage treatment plants, water filtration plants, sewer construction, paving work, etc. Salary: to \$550. Loc.: Middlewest. T-9765(c)

**Draftsman.** 2 plus years exp. in plant layout and preferably foundries. Knowl.: foundry equipment. Duties: make sales drawings in estimating department. For an engineering firm. Salary: \$2 to \$2.25 per hour. Employer will pay fee. Location: Chicago. R-9764(a)

**Estimator.** 2 plus years exp. in estimating work on foundry equipment or heavy machinery. Knowledge of foundry equipment desirable. Duties: estimating and pricing foundry equipment, installation and other kindred activities. Salary: \$2 to \$2.25 per hour. Employer will pay fee. Location: Chicago. R-9764(b)

**Development Eng.** 5 plus years exp. in developing vending or coin machines. Know: Model constr. Duties: developing, designing and testing new items in the vending machine field. For a mfr. of vending machines.

Salary: \$7500-\$10,000. Location: Illinois. Employer will pay the fee. T-9763

**El. Foreman.** Age: 35. 3 plus years exp. as industrial electrical foreman. Know: of maintenance and construction. Duties: Supervise electrical maintenance and constr. crew for industrial plant. Sal.: \$500-\$550 mo. Location: Chicago. Employer will pay fee. R-9762

**Analytical Chemist.** Age: 25-35. 1 plus yrs. exp. in inorganic chemistry and quantitative and qualitative analyses work. Duties: Training position handling analytical chemical work for an electroplating co. For a service of electroplating. Salary: \$350. Loc.: Chicago. Employer will negotiate the fee. R-9761

**Machine Designer.** 3 plus years exp. in designing special machinery. Duties: design light machinery. Age: up to 50. For a manufacturer of office equipment. Salary: \$110 per week. Employer will pay fee. Location: Chicago. R-9760(a)

**Mechanism Designer.** M.E. Age: up to 40. 5 plus years exp. designing small mechanisms, gear chains, etc. Knowledge of close tolerance work. Duties: design small mechanisms, gear chains, etc. For a manufacturer of office equipment. Salary: \$7000-\$7500 per year. Employer will pay fee. Location: Chicago. R-9760(b)

**Electronic Draftsman.** 1 plus years exp. in drawing schematic and pictorial diagrams for electronic circuits. Knowledge of chassis wiring. Duties: drawing schematic and pictorial electronic wiring diagrams. Some background in plain mechanical drawing will be usable. For a manufacturer of office equipment. Employer will pay fee. Location: Chicago. Salary: \$75 to \$90 per week. R-9760(c)

**Microwave Development Engineer.** E.E. 5 plus years exp. in design or development of antenna systems. Duties: develop antenna systems from 1 to 10 cc. region. For a manufacturer of office equipment. Salary: \$7000-\$7500 per year. Employer will pay fee. Location: N. W. Chicago Suburb. R-9760(d)

**Chemical Engineer—Grad.** Age: to 35. 5 years exp. in plant and dev. work in chemical industry. Knowledge of electrical welding. Duties: plant maintenance and chemical development work for manufacturer of chlorides. Salary: \$4800 per yr. Location: Chicago. Employer will negotiate fee. R-9759

**Designer.** 5 years exp. on roller die work. Duties: designer of roller dies—must be good on mathematics. Salary: to \$150 per week. Location: Chicago. R-9758